



SR 520 Tolling and Traffic Monitoring

Background

In December 2011, WSDOT will begin tolling the SR 520 bridge. The SR 520 corridor will use all-electronic tolling, meaning there will be no toll booths. Drivers on SR 520 will be able to cross without stopping to pay, allowing traffic to flow at highway speeds.

This project is part of the Lake Washington Urban Partnership Agreement, a cooperative effort between WSDOT, King County, the Puget Sound Regional Council and the Federal Highway Administration (FHWA) to improve traffic flow within the SR 520 corridor by implementing variable tolling and Smarter Highways systems, offering enhanced transit service and supporting carpools, vanpools, teleworking and other efficient transportation options.

Potential traffic impacts

Approximately 115,000 vehicles cross the SR 520 bridge on an average weekday. When tolling begins in December 2011 we expect a period of adjustment as people modify their travel schedules to take advantage of transit, teleworking and off-peak travel times. Some drivers may also shift their commutes to use other roadways (like SR 522, I-90, I-5 or I-405) to avoid paying a toll on SR 520. Modeling predicts that traffic on alternate routes will increase but not significantly. WSDOT is coordinating traffic monitoring efforts with local jurisdictions that have the potential to be affected by tolling on SR 520.

Predicted speed and volume differences

Route	Speed difference	Additional vehicles AM peak (WB)	Additional vehicles PM peak (EB)
SR 520	20 mph faster	n/a	n/a
SR 522	5 mph slower	200 vehicles (+11.7%)	150 vehicles (+6.4%)
I-90	5-10 mph slower	550 vehicles (+8.3%)	470 vehicles (+7.2%)
I-5 North End	Minimal change	70 vehicles (+1.1%)	80 vehicles (+1%)
I-405 South End	Minimal change	90 vehicles (+2.7%)	60 vehicles (+1.2%)

Note: percent is the percent increase over current traffic volumes

Monitoring efforts

We will closely monitor all of the Lake Washington corridors to determine how tolling is affecting traffic. We will regularly report on those conditions to the Legislature, local governments and the Transportation Commission.

There are two programs planned for monitoring the effects of tolling the SR 520 bridge. One is a wide-ranging comprehensive evaluation conducted by the FHWA as part of the Urban Partnership Agreement (UPA) which is contributing funding for implementing tolling on the SR 520 bridge. This effort will take up to a year to produce results. The second effort will be conducted by WSDOT. It will be limited in scope however results will be available soon after tolling begins.

FHWA's UPA evaluation is expected to address the following major issues:

- Utilization of various UPA projects/systems, including tolling, transit, telecommuting and technologies.
- Perception of the appropriateness and effectiveness of UPA projects/systems as traffic congestion reduction mechanisms.
- Changes in travel behavior (modes, routes, times, origins and destinations, etc.) and the reasons for those changes, including reactions to both UPA projects and non-UPA related factors such as changes in employment.
- As part of the equity analysis, the distribution of impacts and differences in utilization and perception associated with various subpopulations.

WSDOT's monitoring efforts include:

- Installing new equipment on SR 522 to collect travel time information.
- Coordinate signals along the SR 522 corridor
- Collecting traffic volume data from WSDOT's extensive network of traffic detectors on area freeways and on and off ramps.
- Work with local jurisdictions to gather traffic data from local streets
- Monitoring travel times on SR 520, SR 522, I-5, I-90 and I-405
- Sharing the data collected with local jurisdictions

Coordination with local jurisdictions

WSDOT is coordinating traffic monitoring efforts with local jurisdictions that have the potential to be affected by tolling on SR 520. Initially there were two groups, one focused on the SR 520 corridor and the other focused on the SR 522 corridor, however they were later combined into one group. The group provides a forum for WSDOT and local jurisdictions to share information about tolling and work together on the monitoring effort. Local jurisdictions provided information on critical locations within their jurisdictions for the monitoring plan as well as resources to help monitor traffic in key locations within their jurisdictions. They also helped identify seven critical locations where traffic counts were unavailable. As a result, WSDOT will conduct before and after tolling traffic counts at these seven locations.

What impact will tolling have on SR 520 travel speeds?

Initially, there will be a period of adjustment where people modify their travel schedules to take advantage of transit, telecommuting and off-peak times. After this period, traffic models indicate an increase in speed of approximately 20 mph during peak periods.

What impact will SR 520 tolling have on other corridors in the area?

We expect drivers to use a variety of new routes and transit alternatives as a result of tolling SR 520. This will result in slightly more traffic on I-90 and SR 522 during rush hour. We anticipate peak period travel speeds to decrease by 5-10 mph on I-90 and 5 mph on SR 522.

Will the I-90 Bridge be tolled?

The state Legislature considered options for tolling both the SR 520 and I-90 bridges as part of the 520 Tolling Implementation Committee study in 2008. The Legislature decided to only authorize tolling of the SR 520 bridge, with the intent to monitor how SR 520 tolling affects traffic on other corridors and if sufficient funds are being collected to pay for costs associated with building the new 520 replacement bridge. Legislative authorization is required to toll any new corridors, including I-90, and tolling I-90 would also have to be coordinated with FHWA.